

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-18. (Cancelled)

19. (Original) A rechargeable robotic device, comprising:

a body;

a processor attached to said body;

a propulsion device attached to said body to providing self-propulsion;

a communications device attached to said body and connected to said processor to provide two-way communications with a charging station;

a battery connected to said processor, said propulsion device, and said communications device;

a connector for charging said battery, said connector being configured in such a manner that said robotic device can self-position for charging;

wherein said processor is connected to negotiate with a charging station, using a given protocol, to schedule a time slot for charging of said battery.

20. (Original) The rechargeable robotic device of Claim 19, wherein said protocol comprises:

determining that the charge of said battery has dropped below a given level;

establishing a communications link with a charging station;

requesting a time slot for charging;

receiving a suggested time slot for charging;

verifying that said suggested time slot is acceptable and storing said suggested time slot in memory; and

reporting for charging at said time slot.

21. (Original) A method of recharging robotic devices, said method comprising the steps of:

querying a robotic device whether it has reached a given level of depletion;

if the robotic device has reached said given level of depletion, negotiating with said robotic device using a protocol to determine a time slot for charging said robotic device; and

providing charging for said robotic device during said time slot.

22. (Original) The method of Claim 21, further comprising the steps of:
providing said robotic device with new tasks or updated programming during said time slot.
23. (Original) The method of Claim 21, wherein the step of using said protocol comprises the steps of:
offering a next available time slot at which said robotic device can report to said charging station for charging; and
if said robotic device provides a confirmation of said time slot, scheduling said robotic device for said time slot, else
incrementing said available time slot and returning to said offering step.
24. (Original) The method of Claim 21, wherein said charging station maintains separate schedules for each of a plurality of connectors.
25. (Original) The method of Claim 21, wherein said plurality of connectors are different and said protocol includes determining a connector of said plurality of connectors that said robotic device can utilize for charging.
26. (Original) A method of recharging a robotic device, said method comprising the steps of:
determining that an onboard battery has reached a given level of depletion;
contacting an associated charging station;
requesting charging;
receiving and storing a time slot for charging; and
reporting for charging during said time slot.
27. (Original) The method of Claim 26, further comprising the steps of:
receiving new tasks or updated programming during said time slot.
28. (Original) The method of Claim 26, further comprising notifying said charging station of a need for a specific connector needed for charging.
- 29-31. (Cancelled)

32. (Original) A computer program product embodied on a computer readable medium and comprising:

first instructions for detecting when a robotic device has reached a given level of depletion;

second instructions for establishing a communications link between said robotic device and a charging station;

third instructions for using a protocol to determine a time slot for charging said robotic device; and

fourth instructions for charging said robotic device during said time slot;

wherein said instructions are embodied to be performed solely by said robotic device and said charging station.

33. (Original) The computer program product of Claim 32, further comprising:

fifth instructions for providing said robotic device with new tasks or updated programming during said time slot.

34. (Original) The computer program product of Claim 32, wherein said third instructions comprise:

sixth instruction in said nesting station, for providing, in response to a request, a first available time at which said robotic device can report to said nesting station for charging; and

seventh instruction in said robotic device for providing either a confirmation of said time slot or a request for a different time slot.

35. (Original) The computer program product of Claim 32, wherein said nesting station comprises

fifth instructions for maintaining separate schedules for each of a plurality of connectors.